

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

James R. Casciani et al.

Application No.:

Filed: HEREWITH

For: Pulse Oximeter and Sensor
Optimized for Low Saturation

Examiner:

Art Unit:

**INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98**

Assistant Commissioner for Patents
Washington, D.C. 20231

October 30, 2003

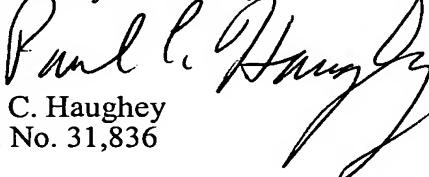
Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. In accordance with 37 CFR §1.98(d), copies of the references can be found in Application No. 09/882,371, filed January 14, 2001 (Attorney Docket No. 9103-009730US). It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to charge such fee from the undersigned's Deposit Account No. 20-1430.

Respectfully submitted,


Paul C. Haughey
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1 of 4

Complete if Known

Application Number	
Filing Date	HEREWITH
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Group Art Unit	
Examiner Name	

Attorney Docket Number 009103-009740US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	0001	3,638,640		Shaw	02/01/1972	
	0002	3,847,483		Shaw et al.	11/12/1974	
	0003	4,114,604		Shaw et al.	09/19/1978	
	0004	4,223,680		Jobsis	09/23/1980	
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	0025	5,772,589		Bernreuter	06/30/1998	
	0026	5,782,237		Casciani et al.	07/21/1998	
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	0028	6,272,363		Casciani et al.	08/07/2001	
	0029	6,298,253	B1	Buschmann	10/2001	

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2

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	0030	WO	92/21283	A	Somanetics Corp.	10/12/92		
	0031	EP	0 522 674	A2	Robinson et al.	13/01/93		
	0032	UK	1 595 206			12/08/81		
	0033	UK	1 595 207			12/08/81		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	0034	"Physio-optical considerations in the design of fetal pulse oximetry sensors", P.D. MANNHEIMER ET AL., European Journal of Obstetrics & Gynecology and Reproductive Biology 72 Suppl. 1 (1997) S9-S19.	
	0035	"Wavelength Selection for Low-Saturation Pulse Oximetry", PAUL D. MANNHEIMER ET AL., IEEE Transaction on Biomedical Engineering, Vol. 44, No. 3, March 1997.	
	0036	"Noninvasive Optical Monitoring", ROSS FLEWELLING, The Biomedical Engineering Handbook, CRC Press 1995.	
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	0039	"Spectral transmittance and contrast in breast diaphanography", SIMA ERTEFAI ET AL., Med. Phys. 12 (4), Jul/Aug 1985, 1985 Am. Assoc. Phys. Med.	
	0040	"Optical properties of human dermis in vitro and in vivo", R. GRAAFF ET AL., 1 February 1993 / Vol. 32, No. 4 / Applied Optics.	
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	0042	"Diffuse reflectance from a finite blood medium: applications to the modeling of fiber optic catheters", LARRY REYNOLDS ET AL., September 1976 / Vol. 15, No. 9 / Applied Optics.	
	0043	"Pulse oximetry: Historical review and Ohmeda functional analysis", MICHAEL W. WUKITSCH, International Journal of Clinical Monitoring and Computing 4: 161-166, 1987.	
	0044	"Effect of Anemia on Pulse Oximeter Accuracy at Low Saturation", JOHN W. EVERINGHAUS, MD ET AL., Journal of Clinical Monitoring Vol. 6, No. 2, April 1990.	
	0045	"Design and Evaluation of a New Reflectance Pulse Oximeter Sensor", Y. MENDELSON, PH.D. ET AL., Medical Instrumentation Vol. 22, No. 4, August 1988.	
	0046	"Errors in 14 Pulse Oximeters During Profound Hypoxia", JOHN W. SEVERINGHAUS, MD ET AL., Journal of Clinical Monitoring, Vol. 5, No. 2, April 1989.	

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		Office ³	Number ⁴						
	0047	<i>"Accuracy of Response of Six Pulse Oximeters to Profound Hypoxia"</i> , JOHN W. SEVERINGHAUS MD ET AL., Anesthesiology, Vol. 67, No. 4, October 1987.							
	0048	<i>"The influence of changes in blood flow on the accuracy of pulse oximetry in humans"</i> , M. VEGFORS ET AL., Acta Anaesthesiol Scand. 1992; 36: 346-349.							
	0049	<i>"Evaluation of Light-Emitting Diodes for Whole Blood Oximetry"</i> , A.P. SHEPHERD ET AL., IEEE Transactions on Biomedical Engineering, Vol. BME-31, No. 11, November 1984.							
	0050	<i>"Noninvasive Methods for Estimating In Vivo Oxygenation"</i> , DAVID A. BENARON, MD ET AL., Clinical Pediatrics, May 1992.							
	0051	<i>"In Vivo Reflectance of Blood and Tissue as a Function of Light Wavelength"</i> , WEIJIA CUI ET AL., IEEE Transactions on Biomedical Engineering, Vol. 37, No. 6, June 1990.							
	0052	<i>"A Non-Invasive Reflectance Oximeter as a Useful Monitor in ICU"</i> , Y. SHIMADA ET AL., Anesthesiology, V. 71, No. 3A, September 1989.							
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	0054	<i>"Fetal monitoring by pulse oximetry and CTG"</i> , HELEN McNAMARA ET AL., McNamara & Johnson, Fetal pulse oximetry, J. Perinat. Med. 21 (1993).							
	0055	<i>"Noninvasive measurement of regional cerebrovascular oxygen saturation in humans using optical spectroscopy"</i> , PATRICK W. MCCORMICK ET AL., SPIE Vol. 1431 Time-Resolved Spectroscopy and Imaging of Tissues (1991).							
	0056	<i>"Statistic of penetration depth of photons re-emitted from irradiated tissue"</i> , GEORGE H. WEISS ET AL., Journal of Modern Optics, 1989, Vol. 36, No. 3, 349-359.							
	0057	<i>"Intrapartum fetal pulse oximetry: Fetal oxygen saturation trends during labor and relation to delivery outcome"</i> , GARY A. DILDY, MD ET AL., September 1994, Am. J. Obstet. Gynecol.							
	0058	<i>"Fetal Oxygenation in Chronic Maternal Hypoxia: What's Critical?"</i> , BEREND OESEBURG ET AL., Oxygen Transport to Tissue XIV, Edited by W. Erdmann et al., Plenum Press, New York 1992.							
	0059	<i>"Electrocortical activity, electroocular activity, and breathing movements in fetal sheep with prolonged and graded hypoxemia"</i> , BRYAN S. RICHARDSON MD ET AL., August 1992, Am J Obstet Gynecol.							
	0060	<i>"Model for photon migration in turbid biological media"</i> , R.F. BONNER ET AL., 1987 Optical Society of America.							
	0061	<i>"Simple Photon Diffusion Analysis of the Effects of Multiple Scattering on Pulse Oximetry"</i> , JOSEPH M. SCHMITT, IEEE Transactions on Biomedical Engineering, Vol. 38, No. 12, December 1991.							
	0062	<i>"Absorption Spectra of Human Fetal and Adult Oxyhemoglobin, De-Oxyhemoglobin, Carboxyhemoglobin, and Methemoglobin"</i> , W.G. ZIJLSTRA ET AL., Clinical Chemistry, Vol. 37, No. 9, 1991.							
	0063	<i>"Reflectance Pulse Oximetry (RPOX): Two Sensors Compared in Piglets"</i> , ROEL NIILAND ET AL., Am J Obstet Gynecol, January 1995, vol. 172, No. 1, Part 2.							

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		Office ³	Number ⁴	Kind Code ⁵ (if known)							
	0064	<i>"Time resolved reflectance and transmittance for the non-invasive measurement of tissue optical properties"</i> , MICHAEL S. PATTERSON ET AL., Applied Optics, 15 June 1989 / Vol. 28, No. 12.									
	0065	<i>"Tissue Optics Applied to Reflectance Pulse Oximetry"</i> , REINDERT GRAAFF, 1993.									
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